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P.1

Dr. W. W. E. Fletcher's Report to the Local Government Board on an Inspection of the Witney Urban District, more especially in relation to the Disposal and Removal of House Refuse and Nightsoil.

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Medical Officer,
November 11th, 1897.

In October, 1895, the Clerk to the Witney Urban District Council wrote to the Board, submitting a draft of bye-laws which it was proposed to substitute for those at that time in force in the district. Certain of the proposed bye-laws had reference to removal of house refuse and of nightsoil by the occupiers of premises ; they would have imposed the duty of such removal on the occupiers, and would also have given the District Council power to inflict penalties for neglect. Inasmuch, however, as the District Council already employed men to remove such refuse and nightsoil as was deposited by the occupiers of premises in buckets or pails in the streets before 9 a.m. ; and inasmuch as there seemed to be some doubt as to the general method of disposal of nightsoil, and as to the kind of closet or privy in common use, the Board, before sanctioning the proposed bye-laws as to scavenging, considered that it would be well to have a report from one of their inspectors, and I was accordingly instructed to visit and report upon the district with special reference to this subject.

The Witney Urban District comprises an area of 193 acres ; and had, at the census of 1891, a population of 3,110 persons. The last rateable value, December, 1896, is given as £8,827, and the corresponding assessable value as £8,029.

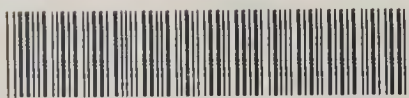
The usual method of excrement disposal is by means of objectionable privies-with-cesspits, or pail-closets which were found to be almost equally objectionable. Some of the better class houses are provided with water-closets. The cesspit-privies are badly constructed. The "risers" of the privy-seats are frequently constructed of wood, with the result that they become saturated with urine, and warp and rot, so that liquid commonly escapes on to the floors of privies. The cesspits are dug below the ground level, are pervious, and allow the escape of urine and other liquid matters into the subsoil. They are not so constructed as to admit of the application of ashes to the contained excrement, and they are emptied only at long intervals. Each cesspit-privy may justly be looked upon as an individual source of nuisance. The pail-closets,—habitually referred to by the Medical Officer of Health as "earth-closets," although no earth is used therein,—are, owing to their bad construction, almost equally objectionable. The spaces beneath the seats are in some cases bricked, but this cannot be relied on as rendering them impervious. Some of the seats are furnished with metal flanges on the front portions of the undersides to direct urine into the pails, but the majority are without such provision. Instead of properly constructed receptacles, the tops of which come close to the undersides of the seats, any old buckets, pails, or tubs are used, and the result is that the spaces under the seats are almost invariably in a filthy condition, urine passing over the fronts of the buckets or pails, and, not infrequently, excrement passing over the backs. In fact, the pail-closets in this district are almost, if not quite, as great a source of nuisance as are the privy-cesspits. At Buckle's Yard four closets intended for use as pail-closets had been erected in what appeared to be an old stable. The stench in the building was almost overpowering, and there was so little light inside the closets that it was necessary to strike matches to examine them. It was then observed that the closets were unprovided with pails, and that the spaces beneath the seats contained a considerable amount of excrement and urine. So far as my observations went to show, there appear to be in Witney as many of these ill-constructed pail-closets as of privies with cesspits. Usually, privies and pail-closets are well removed from dwellings. One water-closet was observed in a filthy condition from want of efficient flushing. There is no public water supply in Witney, and, consequently, wherever water-closets are in use, water for flushing purposes has to be supplied by cisterns collecting rain-water, or

filled by pumping, or reliance has to be placed on hand flushing. Some of the water-closets are drained into cesspools, others discharge their refuse into the "sewers." As regards house refuse and ashes it may be stated that such materials are deposited in buckets or tubs, or in heaps in back-yards or gardens.

Removal of house-refuse and nightsoil is performed in a more or less unsystematic manner. Pails, containing house-refuse, ashes, and excrement, which are placed in the street by the occupiers of premises before 9 a.m., are emptied, and the contents removed by men in the employ of the District Council. All refuse and nightsoil not so removed has to be dealt with by occupiers, and thus it happens that considerable deposits of house refuse and ashes, sometimes mingled with nightsoil, may be found in back yards or gardens. Some occupiers habitually empty the pails from closets in their gardens, either covering with earth, or ashes, each pailful separately, or depositing it in a hole till the accumulation is sufficiently large to fill a wheelbarrow, when it is removed to allotments; others appear to content themselves with emptying the buckets in some spot where ashes and other refuse are deposited in a heap, and to take no further trouble. Large deposits of this kind were observed behind premises off Corn Street, also at West End, and in Viner's Yard, and Marriott's Yard. The contents of privy-cesspits are said to be utilized, in most cases, in the adjoining gardens, *i.e.*, in near proximity to dwellings. This method of dealing with excrement has an important bearing on water supply.

Water supply is derived almost entirely from surface wells, of which there are a very large number, almost every group of houses having one well, or more, in the back yard or garden. Considering the proximity of privy-cesspits, and the fact that excrement is utilized in the cultivation of the gardens, or is merely deposited in them in bulk as removed from privies, it is impossible to look on water obtained from wells so situated without suspicion. The permeability of the subsoil of the district was recently well illustrated by the result attending pumping operations in connection with the sinking of a settling tank at the principal sewer outfall. A powerful centrifugal pump had to be continuously in use while the men were at work, with the result that many of the wells ceased to yield water and became empty, although some were situated at considerable distances from the sewer outfall. If water can be thus drawn long distances through the Witney sub-soil as a consequence of pumping, it is only reasonable to believe that the surface wells must derive pollution, to a greater or less extent, from privy-cesspits and excremental deposits within a few yards' distance. Proposals for a public water supply have been before the Board. Under the advice of Mr. Lailey, the District Council some time ago sunk a well in a field beyond the Workhouse. The well is four feet in diameter and eighteen feet deep, and, although there is no borehole, it is said to yield an abundant supply of good water. On visiting the site, some distance from Witney, and separated from the town by an intervening field, I found the well, situated in a corn field, in an incomplete state. It had been lined with brickwork from the bottom up to within 8 or 9 feet of the top, so far as I could judge, and water was standing in it nearly as far up as the limit of the brickwork. The District Council have, thus far, spent over £160 on the well. Believing that they had found a good supply of water, they applied to the Board for sanction to a loan of £5,000 to complete the work and to lay mains, &c., inquiry as to which was held on February 17th, 1897, by Mr. Meade-King. The application has been refused, on the ground of danger of pollution by drainage from the surrounding arable and presumably manured land. With the object of meeting this objection, the District Council propose to purchase an area of two acres around the well, and to lay it down in grass.

Drainage and sewerage arrangements are very imperfect. Many houses are without proper drainage; some drain into "blind wells" or cesspools, some into ditches, and some into the so-called sewers. The latter are old stone drains constructed only a short distance below the surface, and originally, I have no doubt, intended for surface water only. At the lower end of the High Street there is a short length of stoneware-pipe sewer, laid many years ago. This sewer commences in the River Windrush, close to the bridge, by an iron pipe, designed to convey water for flushing purposes along the sewer which falls in a direction away from the river. I was unable to obtain any



evidence that the iron pipe referred to had at any time acted as an outfall. Until recently this was the only piped sewer in the district, but a new deep sewer has recently been laid, as a result of a serious outbreak of enteric fever in connection with the Marlborough Hotel. This new sewer is, roughly, about 100 yards in length. It serves a portion of the town at a higher elevation, and at a greater distance from the river, than the portion served by the old piped sewer already mentioned. These two sewers, the new one having a fall northwards towards the river, and the old one having a fall southwards away from the river, meet one another in the High Street about its lowest point, whence an intercepting sewer, passing in a westerly direction, conveys the sewage to a settling tank, known as Gunn's Hole. At the side of this tank, on the occasion of my visit, was a filthy deposit of offensive black sludge recently removed from the tank, in accordance, it was said, with the daily custom. From Gunn's Hole a drain, some 200 yards in length, conveys the sewage to an outfall into Emm's Ditch, whence it passes into a stream, which empties into the River Windrush some two miles below Witney, and so, ultimately, reaches the Thames. The condition of Emm's Ditch was very foul, and the smell from it perceptible for a considerable distance; the ditch was, in fact, an open sewer conveying very foul sewage. In consequence of this very serious source of pollution, the Thames Conservators have been making representations to the District Council, and, as a result, the Council have consulted Mr. Lailey. He accordingly prepared a scheme for treating the sewage and for the sewerage of the town, at an estimated cost of, roughly, £7,500. The present District Council fought the last election, I am informed, on the sewage question, and are strongly opposed to a general scheme. They have, therefore, determined, and have already begun, to construct the outfall works only, at a cost of something over £1,000, in order to appease the Thames Conservators, and have also determined to pay for the work by laying a rate of two shillings in the pound for two consecutive years, thus paying the cost out of current rates. In addition to this main outfall, I saw three others, all of which discharge a greater or less amount of sewage into watercourses ultimately flowing into the Thames. I am informed that, since my visit, the District Council have received notices from the Thames Conservancy with respect to two of these three outfalls, and hence a more extended scheme than that decided upon will have to be considered.

At the time of my visit, August 12th and 13th, connections were being made with the new sewer at the Bank. Two or three houses had been connected with it during the previous week, drains being laid from the cellars in addition to the ordinary house drains. Sunday, August 8th, was a very wet day, much heavy rain falling within a short period, and the new sewer, a nine-inch one, was unable to carry off the storm water, the consequence being that the newly-connected cellars were flooded with a mixture of storm-water and sewage. I was informed that, when excavations were being made for the connections, it was observed that the subsoil was stained by sewage matter, which had escaped from the old stone drain downwards and across the footway as far as the foundations of the adjoining houses. A complaint was also made to me of the presence of rats in a cellar, which, it was alleged, found their way in from the faulty old stone drain.

The outbreak of enteric fever at the Marlborough Hotel last year has been dealt with by Mr. Wood, the Medical Officer of Health, in a Special Report. The first case was imported, but the disease spread to ten additional patients during last year and the first quarter of this year. Two of the ten cases terminated fatally. In the presence of both polluted water and very faulty drainage, it is difficult to decide which was responsible for the spread of infection, or whether both contributed; but the latter is possible, seeing that the spot where the leaky drains existed is only some 30 yards from the well. Much would depend upon the depth of the well, the impermeability of the upper portion, and the character of the subsoil. In this instance Mr. Wood reported that the water contained a "high proportion of solid matter, chlorine, and organic ammonia," and the permeability of the Witney subsoil has been demonstrated by the pumping at the sewer outfall already referred to on page 2 of this Report. In the course of my inspection I ascertained that there had been other cases of enteric fever in the town which Mr. Wood did not refer to in his

Special Report. These, he tells me, were few in number, and had no connection with the Marlborough Hotel outbreak. They will be dealt with in his Annual Report.

CONFERENCE WITH THE DISTRICT COUNCIL.

On August 13th I had a conference with the following members of the District Council, viz. :—Messrs. J. Knight (Chairman), C. Gerring, C. Viner, A. Merritt, H. Middleton, and J. Dingle. The Deputy-Clerk and the Medical Officer of Health were also present. I stated that I had, in accordance with the Board's instructions, been inspecting the district, and that I had found it in an unsatisfactory state with respect to the disposal and removal of house refuse and excrement, and with respect also to sewerage, sewage disposal, and water supply. I pointed out that such cesspit-privies as were common in the district could not exist without causing nuisance, and that they should be dealt with as nuisances, and new closets of some kind erected in accordance with the Board's Model Bye-laws.* The improper construction of pail closets was also commented on, and the necessity for systematic scavenging with a view to the frequent and regular removal of objectionable materials from the neighbourhood of dwellings, and to the avoidance of the pollution of water supplies, was pointed out. The undesirability of continuing to obtain water from surface wells in the town, and the need of a proper public water service were impressed upon the Council; and, with respect to the sewage question, they were urged to reconsider their decision, and to adopt an efficient sewerage scheme throughout, instead of merely outfall works, which might, at some future time, need reconstruction to meet the requirements of some general sewerage scheme which would have to be adopted sooner or later. In reply, the Chairman stated that the sewerage question had been discussed and definitely settled; they were going to construct outfall works, and nothing more. Responsibility for the absence of a public water service was thrown on the Board, inasmuch as the Board had refused sanction under the circumstances named to the loan for which application had been made. The Council were in the habit of carting water during periods of drought to ratepayers whose wells were empty, the water for such supply being obtained from a well on the "Green," reported by the Medical Officer of Health to afford a good supply. Surprise seemed to be felt by the Council when they were informed that they could deal with nuisances in the absence of complaints of private individuals, and it seemed to be news to the Council that the Inspector of Nuisances should look for them, and had a right of entry on private premises for the purposes of examining as to the existence of nuisances. The suggestion that the Council should undertake the systematic removal of house refuse and nightsoil seemed to be rather approved than otherwise. With respect to the rates, the Chairman stated that the present General Rate was 2s. in the £. It was alleged that a public water supply would entail another 1s. 6d., and a sewerage scheme another 2s. 6d., which, with 1s. 6d. or 2s. for Poor Rate, would bring the total up to 7s. 6d. or 8s. in the £.

As a result of my inspection, I have no hesitation in reporting that the Witney Urban District Council should undertake, or contract for, the removal of house refuse and nightsoil; and I am also of opinion that there is need of a water service that shall be free from the risk of pollution, of an efficient sewerage scheme, and also of an improved system of closet-construction.

I must express my thanks to Mr. W. Dyson Wood, the Medical Officer of Health, and to Mr. W. G. Eaton, formerly Inspector of Nuisances for the Urban District, now for the Rural District, who, in the temporary absence of Mr. G. A. Graham, the present Inspector of Nuisances for the Urban District, kindly accompanied Mr. Wood and myself throughout the inspection.

WILFRED W. E. FLETCHER.

August 19, 1897.

* A draft of building bye-laws has been submitted to the Board, and returned by them with an intimation that the draft would be approved if the District Council would assent to certain suggested alterations. The draft is still with the District Council. (Aug. 19, 1897.)